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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,933	03/30/2004	Nicholas I. Buchan		7929

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EXAMINER

JOHNSON, CONNIE P

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

04/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,933

Applicant(s)

BUCHAN ET AL.

Examiner

CONNIE P. JOHNSON

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11, 12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on 12/1/2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Cynthia H Kelly/

Supervisory Patent Examiner, Art Unit 1795.

Response to Amendment

2. The remarks and amendment filed 12/1/2008 have been entered and fully considered.
3. Claims 1-3, 11-12 and 14-23 are presented.
4. Claims 1, 15 and 16 are amended.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 15-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 15 recites, "a cover-tape attached to the cushion layer opposite to the layer of photoresist, the cover-tape being larger in the area than the cushion layer and extending beyond at least first and second edges of the cushion layer." The specification does not disclose the size of the cover-tape nor that the cover-tape is attached to the cushion layer. Therefore, the specification does not disclose sufficient support for the recitation.

Claim 16 recites, "a cover-tape attached to the stiffener layer opposite to the layer of the photoresist." The specification does not disclose that the cover-tape is attached to the stiffener layer. Therefore, the specification does not disclose sufficient support for the recitation.

Claim 17 recites, "at least two photoresist transfer pads attached to the cover-tape." The specification does not support this limitation. Nowhere in the specification does applicant disclose having "at least two photoresist transfer pads attached to the cover-tape."

Drawings

7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "37" and "38" have both been used to designate a loaded resist transfer pad. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "37" has been used to designate both loaded resist transfer pad and cover-tape. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-3, 11-12 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nuzzo et al., U.S. Patent Publication No. 2005/0199584 A1.

Nuzzo teaches a composition for microfabrication comprising a substrate, silicon oxide layer (stiffener layer), silicon-containing elastomer layer (cushion layer), top silicon-containing elastomer layer (transfer layer) and a photoresist layer (page 4, [0048]). The substrate comprises a silicon wafer (page 7, [0066]).

The composition also comprises a transfer pad that is in contact with the silicon-containing elastomer layer (page 5, [0056]).

A stimulus-responsive adhesive layer is applied between the silicon-containing elastomer layer and the transfer pad. The stimulus-responsive adhesive layer is a "removable attachment" and is representative of a cover-tape (page 4, [0048]).

The top silicon-containing elastomer layer comprises polydimethylsiloxane (PDMS) (page 3, [0036]) and is representative of the cushion layer with a thickness of 10nm-100µm (page 10, [claim 51]).

The top silicon-containing elastomer layer is representative of a transfer layer and has a thickness of 500nm-100µm (page 7, [0064]).

The recitation in claim 15, "for applying photoresist to a surface of a workpiece" is intended use and therefore does not add positive recitation to the claim (MPEP 2106).

Silicon oxide layers are applied on the silicon wafer substrates with a thickness of 2500Å (page 7, [0067]). The silicon oxide layer is representative of a stiffener layer.

Nuzzo does not specifically teach that the silicon-containing elastomer layer includes silicon rubber. However, Nuzzo teaches the silicon-containing elastomer layers may comprise silicon-modified natural rubber as an elastomeric material (page 3, [0036]). Therefore, it would have been obvious to one of ordinary skill in the art to use silicon-modified natural rubber to the silicon-containing elastomer layer because Nuzzo teaches silicon-modified natural rubber as a silicon-containing elastomer to provide flexible support to the top silicon-containing elastomer layer.

Response to Arguments

10. Applicant's arguments filed 12/1/2008, with respect to the rejection(s) of claim(s) 1-3 and 12 under 103(a), claims 11 and 14-16 under 103(a) and claims 17-23 under 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made herein.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CONNIE P. JOHNSON whose telephone number is (571)272-7758. The examiner can normally be reached on 7:30am-4:00pm Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Connie P. Johnson/
Examiner, Art Unit 1795

/Cynthia H Kelly/

Supervisory Patent Examiner, Art Unit 1795